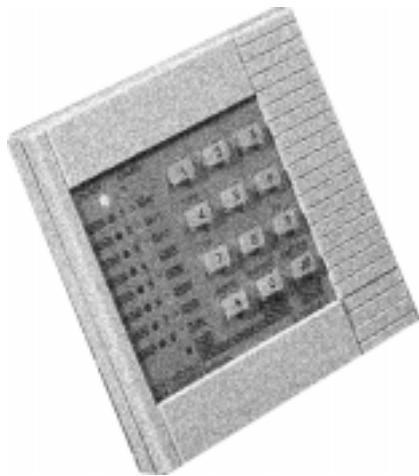


EKP1

LED KEYPAD

Owner's Manual



Use with
AV9000 & SC800/1600 Series Control panel

**IT IS IMPORTANT FOR YOUR SAFETY TO TEST
YOUR SYSTEM AND ITS COMPONENTS REGULARLY.**

ARROWHEAD
A PRODUCT OF SENTROL, INC

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Operating Instructions

Features that are indicated by a refer to options that may or may not apply to your system. Those which your installer has marked below with an "x" pertain to your system.

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System Configuration

The items below should be marked by your installer at the time of installation defining the options that have been programmed.

Options Programmed

<input type="checkbox"/> KEYPAIR ALARMS	<input type="checkbox"/> KEYPAD FIRE RESET [1&3]
<input type="checkbox"/> CHIME ZONES _____	<input type="checkbox"/> GROUP BYPASS ZONES _____
<input type="checkbox"/> EXIT TONE ENABLE	<input type="checkbox"/> PARTITIONED MODE (AV9000)
<input type="checkbox"/> ABBREVIATED ARMING	<input type="checkbox"/> 16 ZONE DISPLAY (SC1600)
 <input type="checkbox"/> OPENING AND CLOSING BY USER	

General Description

The EKP1 is a digital arming station that provides full system control and displays full system status from one or more convenient locations. A brief description of the functions of each light is shown in Figure 1. Additionally, built into each EKP1 is a miniature sounding device which, when active, indicates various conditions such as a Pre-Alarm Warning, Fault Condition, Test Modes of operation, or Door Annunciation.

Your keypad has been designed for the convenience of addi-

tional user codes. These secondary codes are designed to provide access to a maid or other service persons for whom you want to grant entry.

Arming, disarming, bypassing zones, etc., can be accomplished using any of the codes. In order to change codes from the keypad, use of the primary user code is required. **User codes can be changed from the keypad and must have 4 digits.**

All features pertaining to the AV9000 also apply to the SC700 control panel. Features pertaining to the SC series panels apply to the SC800 and SC1600 panels only. The SC700 is an AV9000 PCB housed in a Grade "A" cabinet which meets UL Commercial Burglary installation specifications.

IT IS IMPORTANT FOR YOUR SAFETY THAT YOU TEST YOUR SYSTEM REGULARLY.

Key Pair Alarms

The chart below is duplicated on page 12 but included here for your installer to complete, reflecting the programming of the panel.

<u>Keypad Symbol</u>	<u>Assigned Function</u>
● Circle	<input type="checkbox"/> Not Used <input type="checkbox"/> _____
■ Square	<input type="checkbox"/> Not Used <input type="checkbox"/> _____
◆ Diamond	<input type="checkbox"/> Not Used <input type="checkbox"/> _____
▲ Triangle	<input type="checkbox"/> Not Used <input type="checkbox"/> _____

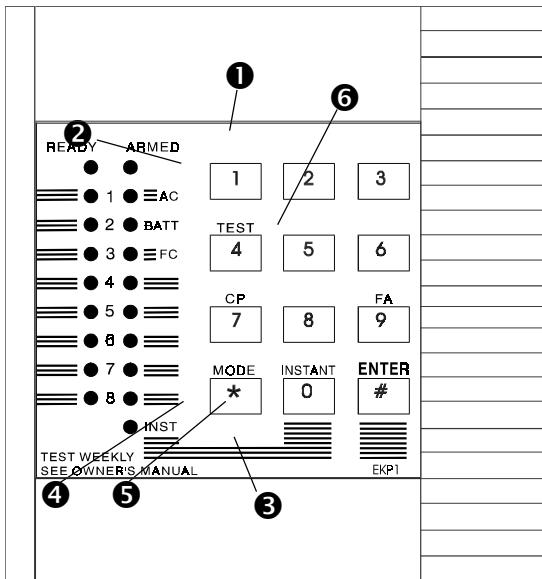


Figure 1

① - Red “ARMED Light” -

ON STEADY - Indicates system is "Armed" or "on"
 FLASHING - Indicates "Alarm Memory"

② - Green “READY Light” -

ON STEADY - Indicates system is ready to be armed,
 FLASHING - Indicates system "Trouble" or Fault Condition exists

③ - Amber “INSTANT Light” - when on indicates that delay zones are in Instant Mode.

④ - Red “ZONE Lights” (left column of LEDs)— These lights indicate different conditions depending on the status of the system. Whether the system is armed or disarmed, the lights that are ON indicate violated zones. When the system is "Armed" the lights that are flashing indicate zones that have caused an alarm.

⑤ - Red "Individual Armed Lights" (right column of LEDs) - These lights indicate the "Armed" status of the individual zones. A flashing LED indicates zones that have caused an alarm.

⑥ - Red lights in "Fault Analysis" mode indicate nature of fault when on as follows:

"Armed" Zone 1 LED - No AC power
"Armed" Zone 2 LED - Low Battery condition
"Armed" Zone 3 LED - Failure to Communicate

Note: The CP on key "7" stands for change program, the FA on key "9" stands for fault analysis. The Instant on key "0" stands for instant/delay. The test on key "4" stands for system test. 24 hour zones indicate individual armed status.

Special 16 Zone Display Mode (Use on the SC1600 only)

When selected, the status of zones 1-8 will be indicated in the **READY** column of LEDs and the status of zones 9-16 will be indicated in the the **ARMED** column of LEDs. The LEDs will appear in the following manner:

LEDs lit and not flashing indicate **ARMED** zones
LEDs flashing with the **ARMED** LED are zones in ALARM
LEDs lit and **READY** LED not lit indicates zones in VIOLATION

Disarming And Silencing Your System (when ARMED light is on)

To disarm your system, enter the key sequence as follows:

[YOUR
USER CODE] + [#]

If you disarm your system, all armed lights are off (any armed lights which stay on indicate 24 hour zones). If you silence the system in ALARM, the **ARMED** LED and the **ZONE** LED of the zone in ALARM will blink. This is called ALARM MEMORY and will clear by entering the **User Code** and **[#]** key again. The ARMED ZONE LED for the 24 Hour zones will remain on at all times.

SAFETY RECOMMENDATION: *If, when arriving home, the burglar alarm is sounding, contact police from a nearby location. DO NOT ENTER YOUR RESIDENCE.*

Arming your system when Ready Light is lit

When the **READY** light is on, all zones can be armed by entering your **User Code** and **[#]**. If the **READY** light is not on you must either close the door or window that is open or **BYPASS** the zone and eliminate it from the system for this **ARMING**.

[YOUR
USER CODE] + [#]

Your system is now armed. All armed zone lights are on.

Abbreviated Arming

The allows the system to be armed by using only the first one, two, or three digits of the user code. Once your installer has selected the number of digits for abbreviated arming, user code(s) may be changed without effecting abbreviated arming number of digits.

Note: The full 4 digit user code must be used if bypassing.

Zone Bypass

If one of the left hand zone lights are on, a door or window is open or a zone is violated. Let us assume that the zone 3 window is open. The light to the left of zone 3 will be on. Entering the User Code will not arm the system because zone 3 is in a violated condition. Suppose the window is intentionally left open to allow some air circulation and the rest of the zones are to be armed. To bypass a zone, enter your user code, enter the number of the zone to be bypassed (in this case "3") as follows:

[YOUR USER CODE] + [3] + [#]

Except for zone 3 all other burglary zones will light. Zone 3 is now deactivated. If the window is closed and opened again, an alarm condition will not result, as this zone will be bypassed until the system is disarmed and rearmed. When the system is disarmed the bypass is removed.

Multiple zones can be bypassed at one time by pressing their zone number before you press enter.

Zone Bypass on SC1600 of "Two Digit" Zones

If "two digit" zone numbers, such as zones 10-16, are to be bypassed the following sequence must be used:

[YOUR USER CODE] + [*] + [8] + [*] + [TWO DIGIT ZONE NO.] + [#]

This sequence can be used in conjunction with single zone bypassing. Additional zones can be added to the above sequence by simply adding a [*] & [Two Digit Zone Number] into the string just prior to the [#] key.

Note: A maximum of 3 zones can be bypassed with this sequence.

Bypassing a Group of Zones

The AV9000 system can have been configured to allow a group of interior zones to be easily bypassed with a simple "Group Bypass" sequence:

[YOUR USER CODE] +  +  + 

Group Bypassing is normally used to turn the alarm system "On" while remaining in the protected area.

Two bypass groups are possible on the SC800/1600 control panels and their sequence are as follows:

Group 1 Bypass [YOUR USER CODE] +  +  + 
Group 2 Bypass [YOUR USER CODE] +  +  + 

The two bypass groups allow you to select parts of your system that you may want to leave off at certain times and control them separately. As an example, the groups could be used for bedroom windows and interior protection. Both groups can be bypassed by following the [*] [1] with [*] [2] followed by[#].

Instant/Delay Mode

When you leave the premises, your system will normally arm in the Delay Mode. This will delay arming and allow time for you to exit. When entering, the alarm will be delayed to allow time for you to disarm the system. The audible warning device will sound during the entrance delay to remind you to disarm the system. The Instant Mode is primarily used in residences. The key sequence is as follows:

[YOUR USER CODE] +  +  + 

If zone(s) are to be bypassed in conjunction with entering the Instant mode or if group bypassing is desired, simply enter the zone number(s) or the [* 1] prior to the [*] key.

Arming/Disarming Reports By User

The Arming and Disarming by user code identifies the user who disarms and arms the system. This is accomplished by assigning an individual user code to each of the eight possible users. The primary user code is always reported as user "1". Seven additional secondary user codes report as users "2-8". Select secondary codes as shown in "Changing Code(s) From the Keypad" Section.

Testing Communicator

Your installer should instruct you on how and when to test your system. Central monitoring stations have different procedures for testing the communicator. Your installer should be familiar with this procedure.

Testing Your System

The system should be tested weekly. The local system can be tested to verify that the system components are functioning properly by using the following sequence:

[YOUR
USER CODE] +  +  + 
To start the Test mode

[YOUR
USER CODE] + 

This final sequence must be entered in order to return the system to Normal mode.

During the test each door contact, motion detector, etc. should be violated. This will initiate a short blast from the siren output. The Entry/Exit delays are shortened to 4 seconds during the test.

Setting Chime Mode

Your installer may have designated certain burglary zones to briefly activate the mini-sounder contained in each keypad. These zones typically enunciate that a door has been opened or closed while the panel is in the disarmed mode.

The **Chime feature** is activated on the AV9000 control panels using the key sequence:

[YOUR
USER CODE] + [*] + [6] + [#]

Enter the sequence again to turn the feature "Off".

The **Chime feature** is activated or switched "ON" on the SC800/1600 control panels using the key sequence:

AAAA [*] [3] [0] [#]

The **Chime feature** is deactivated or switched "OFF" on the SC800/1600 control panels using the key sequence:

AAAA [*] [3] [1] [#]

Note: The AAAA code above represents "ANY" user code.

Fault Condition

A Fault Condition could, if unheeded, potentially render your system inactive. If such a fault should occur it will be indicated by a flashing green "READY" light and an audible warning tone at the keypad. To identify the nature of the Fault Condition, activate the following sequence:

[YOUR
USER CODE] +  +  + 

This will also silence the audible warning. Fault conditions will show by flashing the appropriate zone LED (see following chart). Discuss with your installer what action to take if a problem should occur. If a trouble condition occurs on a fire zone, call your installer for service. An important part of your system is out of order.

The Table below shows the LCD keypad messages and the LED Zone numbers 1-3 for each of the Fault Conditions:

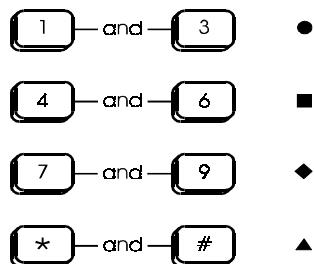
Green READY LED Flashing Indicates That a Trouble Condition Exists	
LED Indication	Problem
Zone #1 AC	Indicates the AC power to your alarm system has been disrupted.
Zone #2 BATT	Indicates a low battery condition
Zone #3 FC	Indicates a communication failure with Central Station.

The **Zone in Trouble** will show constantly if the Trouble condition is Fire or Burglary. The keypad will display the zone in Trouble.

***IT IS IMPORTANT FOR YOUR SAFETY THAT YOU HAVE YOUR
INSTALLER CORRECT ANY FAULTS AS SOON AS POSSIBLE.***

Emergency Alarm Key Pairs

There are four special emergency codes that can be initiated at the keypad. **THESE EMERGENCY ALARM KEY PAIRS MUST BE PRESSED SIMULTANEOUSLY.** The special keypad key pair combinations were designed to help minimize false alarms and are marked with a circle, square, diamond, or triangle.



Consult with your installer/dealer as to which one(s) of these are used, if any, and which combination initiates which alarm. The special symbols on the keypair rows are to help you identify which keys to press in case of an emergency situation.

<u>Keypad Symbol</u>	<u>Assigned Function</u>
● Circle	<input type="checkbox"/> Not Used <input type="checkbox"/> _____
■ Square	<input type="checkbox"/> Not Used <input type="checkbox"/> _____
◆ Diamond	<input type="checkbox"/> Not Used <input type="checkbox"/> _____
▲ Triangle	<input type="checkbox"/> Not Used <input type="checkbox"/> _____

Note: If User Code Tamper has been selected in the EKP1 keypad programming the [7 & 9] keypair will not function.

Changing/Deleting User Code(s) From The Keypad

The alarm controls covered by this manual have the following number of user codes:

AV9000	8 User codes
SC800	16 User Codes
SC1600	32 User Codes

To create/change the user codes on the AV9000 panels enter:

[User #1 Code] [*] [7] [*] [nn] [*] [CCCC] [#]

where CCCC is the new code for the user number “nn”. User #1 of the AV9000 is the only user code capable of changing user codes. If the system is in a trouble condition, the EKP1 will enter the fault analysis mode for approximately 5 seconds after the code change programming sequence is finished, and then returns to normal operation.

In the SC800 and SC1600 systems your user code must be programmed by the installer to have the authority to change codes using the following sequence:

[Any Qualified User Code] [*] [7] [*] [nn] [*] [CCCC] [#]

Deleting Secondary User Codes

It may become necessary to delete a secondary user code.

For user codes on the AV9000 systems only user #1 can delete secondary user codes using the following sequence:

[User #1 Code] [*] [7] [*] [nn] [#]

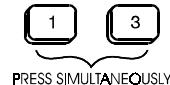
For user codes on the SC800/1600 systems:

[Any Qualified User Code] [*] [7] [*] [nn] [#]

Where [nn] = User number who's code is to be deleted.

Smoke Detector Reset

Professional quality smoke detectors are designed to latch into alarm condition and must be manually reset. Your control panel can be programmed to reset the device after an alarm condition by **simultaneously pressing** the "1" + "3" keys on the keypad.



Partitioned Mode

Your installer/dealer may have assigned specific zone(s) for you. Other users may share the same alarm system. There is very little interaction between users, and arming and bypassing zones can be done without interfering with other users. Entering the User Code and then pressing [#] will arm or disarm all of your zones.

**[YOUR
USER CODE] + [#]**

As before, in case of an alarm condition, enter your User Code plus Enter. This will shut the alarm off.

(AV9000 / SC700 panels only)

When partitioned mode is used, user codes 1-4 control panel zones 1-4 and user codes 5-8 control zones 5-8.

Remote Downloader Functions

(AV9000 and SC800/1600 PANELS)

The panel can be programmed over the phone line using a computer. There are times when you may be instructed by the Monitoring Center to use one of these special commands for that purpose.

These functions should only be used when instructed by personnel at either the Monitoring Center or Installation Company.

Call the "ScanPro" Downloader Software

The panel will call the Computer, by entering:

[Any User Code] [*] [6][5] [#]

Answer the "ScanPro" Downloader

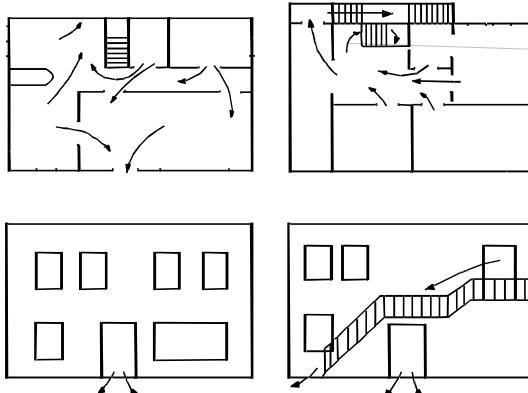
The panel may be programmed not to answer the telephone. Force the panel to answer the call by entering:

[Any User Code] [*] [6][6] [#]

Evacuation Plan

The National Fire Protection Agency recommends the following guidelines to be prepared for an actual fire.

1. Draw a floor plan of the building marking all doors and windows.
2. Evaluate all possible escape routes from building, trying each route.
3. Select two (2) escape routes from each room.
4. Second floor rooms should have a rope ladder that reaches the ground.
5. Draw a sketch of the escape route and familiarize everyone in the home with it.
6. Select a meeting place outside where everyone is to report.
7. Practice the escape plan with everyone in household.
8. Advise the local fire department that a fire alarm system is installed.



**FOR MORE INFORMATION WRITE:
NFPA
1 Battery March Park
Quincy, MA 02269**

**APPROVAL OF FIRE AUTHORITY DOES NOT INCLUDE
BURGLAR INSTALLATION OR EQUIPMENT.**

**FOR TECHNICAL ASSISTANCE PLEASE CONTACT YOUR
INSTALLER/DEALER**

WARRANTY AND LIABILITY LIMITATIONS AND DISCLAIMER

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Sentrol, Inc., warrants to the purchaser that under normal use and service, its products will be free from defects in material and workmanship as follows: Control Panels and accessories - 24 months from date of manufacture; Sensors and accessories - 60 months from date of manufacture. Sentrol, Inc.'s warranty obligation is limited to repairing or replacing (at Sentrol, Inc.'s sole option) equipment which has been, during the warranty period and not more than thirty 30 days after discovery, reported to Sentrol, Inc., as defective in material or workmanship and is so found to be by Sentrol, Inc., upon inspection. For the purposes of this Warranty, Purchaser refers to wholesale purchaser, installer and retail purchaser. Retail purchaser must, however, in the case of defect, contact the person or entity who installed and maintains the product who in turn should contact Sentrol, Inc., in accordance with the terms of this Limited Warranty.

Examination and repair or replacement of such equipment will be performed at Sentrol, Inc.'s facilities located in Hickory, North Carolina, with no charge to purchaser for service time expended, except as otherwise stated in this Warranty Limitations and Disclaimer. Equipment to be examined, replaced or repaired at Sentrol Inc.'s facilities must be returned to Sentrol, Inc., by purchaser within the warranty period, insurance and transportation charges prepaid. Prior to the return of the equipment, wholesale purchasers or installers shall obtain a return authorization number from Sentrol, Inc.'s Customer Service Department. Retail purchasers are to contact the person or entity who installed and maintains the product. Under no circumstance Sentrol, Inc., will be responsible for expenses or labor incurred in removing and reinstalling its products from the retail purchaser's location. If examined equipment is found not to be defective or is not for some other reason within the warranty coverage, Sentrol, Inc.'s service time expended will be charged to purchaser.

Purchaser shall be responsible for all maintenance, service, replacing expendable parts, making minor adjustments and performing operating checks, all in accordance with procedures outlined in Sentrol, Inc.'s operation manual. This Warranty shall not apply to any product failure that results from purchaser's failure to properly maintain, service, adjust, inspect and test the product in accordance with Sentrol, Inc.'s operation manual.

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The repair or replacement of any product under this Warranty Limitation and Disclaimer shall in no event extend the term of the warranty beyond the original term set forth herein.

Sentrol, Inc., will have no further warranty obligation under this agreement if the equipment is subject to tampering, abuse, misuse, electronic disruption, negligence, accident, flood, fire, acts of God, improper installation, application or programming, improper maintenance or repair, alteration, repair or installation by an unauthorized installer or repair facility, improper storage, transportation or handling, or if purchaser fails to perform any of the procedures set forth in the manual, and/or instruction sheet; specifically, the equipment must have been installed in accordance with the instructions and operated in accordance with the instructions. In particular, the unit must be programmed for regular test and the tests must be conducted on a regular basis, but no less often than once per week.

This Warranty does not apply to components or parts manufactured by any person or entity other than Sentrol, Inc.

Any repair or replacement of product within this Warranty must be performed by Sentrol, Inc.

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THE WARRANTY PRINTED ABOVE IS THE ONLY WARRANTY APPLICABLE TO THIS PURCHASE. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED.

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This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow limitation on how long an implied warranty will last or the limitation or exclusion of incidental or consequential damages, so the above limitations or exclusion may not apply to you, if not allowed by law.

Should purchaser have any questions with regards to this Warranty and Liability Limitations and Disclaimer they should contact:

SENTROL, INC.
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Hickory, North Carolina 28601
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